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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,353	11/03/2003	Karen M. Daidone	G08.064	5240
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EXAMINER				
LIU, ALAN Y				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/700,353

**Applicant(s)**

DAIDONE ET AL.

**Examiner**

ALAN LIU

**Art Unit**

3691

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 April 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 and 11 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This communication is a third Office Action Non-Final rejection on the merits.

Claims 1-9 and 11 are pending and have been considered below.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 1-9 and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claims 1-9 and 11 recite processes comprising the steps of receiving, identifying, generating, comparing, running queries, and characterizing. Based on Supreme Court precedent, a proper process must be tied to another statutory class or transform underlying subject matter to a different state or thing (*Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876)). Since neither of these requirements is met by the claim, the method is not considered a patent eligible process under 35 U.S.C. 101. To qualify as a statutory process, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus that accomplished the method steps or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 2, and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman et al. (2002/0082991) in view of Nelson (6,032,132) and Pintsov (2003/0036918).**

**As per claim 1**, Friedman et al. discloses a method of identifying billing discrepancies (Abstract), comprising:

receiving billing data from a billing entity, said billing data including an assessed fee and call details associated with each of a plurality of calls made by a customer (page 2, paragraph 0032; page 3, paragraph 0036);

identifying, based at least in part on said call details received from said billing data, rate information associated with said customer (page 3, paragraph 0044);

generating an expected fee for each of said plurality of calls (page 3, paragraph 0044);

comparing, for each of said plurality of calls, said expected fee with said assessed fee to identify discrepancies (page 3, paragraph 0044);

However, Friedman et al. fails to expressly disclose:

generating a database of the discrepancies;

running queries against call details associated with calls having discrepancies to determine whether overall charge for the calls having discrepancies varies based on length of each of the calls having discrepancies;

characterizing at least one of the discrepancies as resulting from misapplication of a time dependent charge if a proportion of the discrepancies does not vary with length of the calls having discrepancies.

Nelson teaches a telecommunications access cost management system with a database of discrepancies (col. 2, lines 43-46, via discrepancies are recorded in the production database).

From this teaching of Nelson, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of identifying billing discrepancies of Friedman et al. to include a database of discrepancies as taught by Nelson in order to better keep track of the different billing discrepancies.

Pintsov teaches a system and method for trusted self-billing and payment that runs queries to determine whether there are discrepancies that vary based on the length of calls (page 7, paragraph 0067, via systematically observed difference is a discrepancy that does not vary for multiple charges) and characterizes one of the discrepancies as a misapplication of a time dependent charge (page 7, paragraph 0066, via billing file includes duration of call, charge amount of the call; page 9, paragraph 0077, via discrepancy due to charging with a different rate plan).

From this teaching of Pintsov, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of identifying billing

discrepancies of the Friedman and Nelson combination to include running queries to determine whether discrepancies vary based on the length of calls and characterizing discrepancies as misapplications of time dependant charges as taught by Pintsov in order to identify the type of discrepancy and the cause of it.

**As per claim 2**, Friedman et al. discloses analyzing each discrepancy to determine if each discrepancy is a billing error (page 3, paragraph 0044).

**As per claim 8**, Friedman et al. discloses generating a set of discrepancies identified as billing errors (page 7, paragraph 0084).

**As per claim 9**, Friedman et al. discloses communicating said set of discrepancies identified as billing errors to said billing entity (page 7, paragraph 0084).

**6. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman et al. in view of Nelson and Pintsov as applied to claim 2 above, and further in view of Zai (6,975,208).**

**As per claim 3**, the Friedman, Nelson, and Pintsov combination discloses all elements of the claimed invention as written above, but fails to expressly disclose analyzing the difference between said expected fee and said assessed fee to identify a pattern associated with a known surcharge.

Zai teaches a variable alarm for communication devices where service providers typically bill their customers using a combination of fixed fees and variable charges (col. 1, lines 21-31).

From this teaching of Zai, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of identifying billing

discrepancies of the Friedman, Nelson, and Pintsov combination to include billing with a combination of fixed and variable fees as taught by Zai in order to identify a billing discrepancy with a known surcharge, or incorrectly applied fixed fee, by looking at differences between expected and actual amounts to see if there is a consistent difference.

**As per claim 4**, the Friedman, Nelson, and Pintsov combination discloses all elements of the claimed invention as written above, but fails to expressly disclose analyzing discrepancies associated with said billing data to identify discrepancies associated with fixed charges.

Zai teaches a variable alarm for communication devices where service providers typically bill their customers using a combination of fixed fees and variable charges (col. 1, lines 21-31).

From this teaching of Zai, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of identifying billing discrepancies of the Friedman, Nelson, and Pintsov combination to include billing with a combination of fixed and variable fees as taught by Zai because fixed charges are one of two types of charges and might be incorrectly applied on a bill creating a discrepancy.

**As per claim 5**, the Friedman, Nelson, and Pintsov combination discloses all elements of the claimed invention as written above, but fails to expressly disclose analyzing discrepancies associated with said billing data to identify discrepancies associated with time-based charges.

Zai teaches a variable alarm for communication devices where service providers typically bill their customers using a combination of fixed fees and variable charges (col. 1, lines 21-31).

From this teaching of Zai, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of identifying billing discrepancies of the Friedman, Nelson, and Pintsov combination to include billing with a combination of fixed and variable fees as taught by Zai because time-based, or variable, charges are the other type of charge and might be incorrectly applied on a bill creating a discrepancy.

**7. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman et al. in view of Nelson and Pintsov as applied to claim 1 above, and further in view of Michaels (6,240,167).**

**As per claim 6**, the Friedman, Nelson, and Pintsov combination discloses all elements of the claimed invention as written above, but fails to expressly disclose said billing data further includes rate information identified by said billing entity for each of said plurality of calls.

Michaels teaches said billing data further includes rate information identified by said billing entity for each of said plurality of calls (col. 14, lines 25-29 and 46-52).

From this teaching of Michaels, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of identifying billing discrepancies of the Friedman, Nelson, and Pintsov combination to include that the billing data includes rate information for each of the plurality of calls taught by



Michaels because rate information is necessary to calculate the total amount to charge a customer.

**As per claim 7**, the Friedman, Nelson, and Pintsov combination discloses all elements of the claimed invention as written above, but fails to expressly disclose said identifying includes generating a set of customer data including said call details, said rate information associated with said customer, and said expected fee.

Michaels teaches said identifying includes generating a set of customer data including said call details, said rate information associated with said customer, and said expected fee (col. 14, lines 46-52).

From this teaching of Michaels, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of identifying billing discrepancies of the Friedman, Nelson, and Pintsov combination to include generating a set of customer data including the call details, the rate information associated with the customer, and the expected fee taught by Michaels because generating all of this information facilitates the error-checking process by providing details on how everything is calculated.

**8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman et al. in view of Nelson and Reding et al. (5,822,414).**

**As per claim 11**, Friedman et al. discloses a method of identifying billing discrepancies (Abstract), comprising:

receiving billing data from a billing entity, said billing data including an assessed fee and call details associated with each of a plurality of calls made by a customer (page 2, paragraph 0032; page 3, paragraph 0036);

identifying, based at least in part on said call details received from said billing data, rate information associated with said customer (page 3, paragraph 0044);

generating an expected fee for each of said plurality of calls (page 3, paragraph 0044);

comparing, for each of said plurality of calls, said expected fee with said assessed fee to identify discrepancies (page 3, paragraph 0044).

However, Friedman et al. fails to expressly disclose generating a database of the discrepancies.

Nelson teaches a telecommunications access cost management system with a database of discrepancies (col. 2, lines 43-46, via discrepancies are recorded in the production database).

From this teaching of Nelson, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of identifying billing discrepancies of Friedman et al. to include a database of discrepancies as taught by Nelson in order to better keep track of the different billing discrepancies.

However, the Friedman and Nelson combination fails to expressly disclose running a query to identify discrepancies of substantially a fixed amount to identify calls placed from a public pay phone.

Reding et al. teaches a method and apparatus for automating telecommunications class charging and for reducing operating errors with billing errors associated with pay phone calls (col. 1, lines 25-29, via pay phone call class type; col. 1, lines 46-54, via billing errors where a call may go unbilled or incorrect class charge information is entered).

From this teaching of Reding et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of identifying billing discrepancies of the Friedman and Nelson combination to include pay phone call billing errors as taught by Reding et al. because they are a type of call that may be billed incorrectly creating a discrepancy.

### ***Response to Arguments***

9. Applicant's arguments filed 4/23/08 have been fully considered but they are not persuasive. In the remarks, Applicant argues that Friedman does not disclose determining that the discrepancies vary with length of call or characterizing a discrepancy as resulting from misapplication of a time dependent charge. Applicant also argues that Reding does not teach public pay phone calls are to be identified by identifying discrepancies of a fixed amount.

Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Examiner has clarified the rejection of claim 3. Zai teaches billing customers with a "combination of fixed access fees and variable charges" (col. 1, lines 21-23). As the

Friedman and Nelson combination disclosed a method of identifying billing discrepancies, it would have been obvious to one of ordinary skill in the art to include the two types of fees as taught by Zai and identify discrepancies associated with either of the two types. A billing discrepancy for a fixed charge is identified by checking if there is a constant difference between the expected and assessed amounts. Additionally, if the difference is not constant, a billing discrepancy for a variable, or time-based, charge would be suspected.

In response to the argument for claim 11, Examiner respectfully disagrees. Reding teaches a method and apparatus for automating telecommunications class charging and for reducing operating errors including billing errors associated with pay phones (col. 1, lines 25-29, via pay phone call class type; col. 1, lines 46-54, via billing errors where a call may go unbilled or incorrect class charge information is entered). Since Friedman and Nelson teach a method for identifying billing errors and discrepancies, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify this combination and include pay phone billing errors as taught by Reding in order to identify discrepancies with pay phone calls.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim et al. (2004/0081302) discloses a method for divisional billing.

Majewski et al. (2002/0129039) discloses an error usage investigation and disposal system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN LIU whose telephone number is (571)270-5113. The examiner can normally be reached on Monday through Thursday, 8:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on 571-272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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